

REMARKS

Claims 1-48 and 50-53 are currently pending in the present application, with Claims 1, 10, 13, 18, 25, 26, 41, 43, 47, and 48 being amended. Reconsideration and reexamination of the claims are respectfully requested.

Applicants thank the Examiner for the telephonic interview conducted on November 5, 2004, during which Applicants explained to the Examiner various patentably distinct features of the present invention.

The Examiner rejected Claims 41-48 and 53 under 35 U.S.C. § 102(b) as being anticipated by Katoh (U.S. Patent No. 4,794,837). This rejection is traversed with respect to the amended claims.

The invention claimed in Claims 41-48 and 53 are directed to a method of processing waveform data in which the original waveform data is divided into multiple partial waveform data, and an additional section is added to the tail end of each of the partial waveform data to as to attenuate the partial waveform over time to an envelope level at an end of a corresponding one of the partial waveform data. The modified partial waveform data is then stored in a storage device. By dividing the original waveform data into multiple partial waveform data and attaching additional sections to each of the partial waveform data, time-axial contraction/expansion of the original waveform can be realized. Claim 41 (and similarly Claim 47) have been amended to recite steps of detecting rise time for each divided partial waveform data, and storing the detected rise times in association with the individually divided partial waveforms. Claim 43 (and similarly Claim 48) have been amended to recite that the reproduction of start timing of each divided waveform data is controlled in accordance with the rise time of the divided waveform data.

With respect to Claims 41-49, Katoh discloses connecting waveforms of different characteristics (e.g., PCM data and DPCM data), where prestored DPCM data is converted into PCM data and the converted PCM data is connected with the prestored PCM data. Katoh simply

does not teach or suggest dividing waveform data into multiple partial waveforms, and adding waveform data of an additional section to each of the divided partial waveform data.

Furthermore, with specific respect to Claims 41 and 47, Katoh does not teach or suggest detecting rise time for each divided partial waveform data, and storing the detected rise times in association with the individually divided partial waveforms and, with respect to Claims 43 and 48, Katoh does not teach or suggest controlling the reproduction of start timing of each divided waveform data in accordance with the rise time of the divided waveform. Accordingly, Applicant respectfully submit that Claims 41-48 and 53 are patentable over Katoh.

The Examiner rejected Claims 1-26 under 35 U.S.C. § 103(a) as being unpatentable over Yamada et al. (U.S. Patent No. 5,614,687) in view of Miyake (U.S. Patent No. 5,256,832). This rejection is respectfully traversed with respect to the amended claims.

As previously communicated, Claim 1 (and similarly Claim 10) are directed to method and apparatus for analyzing a waveform data, wherein a particular type of waveform is first designated from multiple different types of waveforms, after which the designated waveform is subject to a filter process for removing unwanted frequency components. Importantly, the filter process is carried out using a filter parameter that corresponds to the type of waveform selected. Neither Yamada nor Miyake contain any disclosure of designating a waveform type and, in accordance with the designated waveform type, select a parameter to be used for carrying out a filter process on a waveform data. Rather, as discussed during the telephonic interview, Yamada simply teaches using a band-pass filter, regardless of the type of waveform is being processed, for extracting a frequency component of a given frequency region. Miyake simply does not teach filtering frequency components of waveforms. Applicants respectfully submit that Claims 1, 2, 8, 10, and 11 are thus not obvious in view of Yamada and Miyake.

With respect to Claim 3 (and similarly Claims 9 and 12), as previously communicated, neither reference contain any disclosure of calculating a differential value of the envelope of a waveform that is detected as having been subject to a filter process, and determining dividing positions of the waveform based on such calculations. Rather, Miyake teaches a technique of

using a threshold value to identify a rise position (see Fig. 3 of Miyake). Applicants note that “differential value,” as defined in the specification, refers to a difference between successive waveform values of the original waveform data (as opposed to threshold value which refers to a particular fixed value). Similarly, Yamada does not teach or suggest calculating envelop values of a waveform and thus fails to make up for the deficiencies of Miyake. Applicants note that this group of claims was not addressed by the Examiner in the Detailed Action, as the Examiner acknowledged during the telephonic interview. Applicants respectfully submit that Claims 3-7, 9, and 12 are not obvious in view of Yamada and Miyake.

Regarding Claims 13 (and similarly Claims 18 and 23-26), Applicants respectfully submit that the cited references do not contain any disclosures of identifying sections of waveform data (e.g., measures) that contain presumed beat positions (such as a downbeat position) and detecting a plurality of rise positions within the identified sections, wherein one of the detected rise positions is set as a dividing position (e.g., waveform data control points) for further processing purposes. Rather, as Applicants discussed with the Examiner during the telephonic interview, Miyake simply shows dividing a single wave at specified points (see Fig. 3). Yamada fails to make up for the deficiencies of Miyake and does not teach or disclose any method for dividing a waveform based on detected rise positions within a an identified section. Accordingly, Applicants respectfully submit that claims 18-22 and 24-26 are not obvious in view of Yamada and Miyake.

In view of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. Reconsideration and reexamination of the claims, as amended, are respectfully requested, and an early allowance is solicited. If the Examiner believes it would further advance the prosecution of the present application, he is respectfully requested to contact the undersigned attorney.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to

charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 393032030300.

Respectfully submitted,

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